

REMARKS

This is responsive to the Official Action of April 20, 2006.

Claims 1, 3, 5-8, 10-13, 14, 16, 33, and 35-37 are pending, with claims 2, 4, 9, and 15, and previously withdrawn claims 17-32 and 34 being cancelled without prejudice.

Applicant reserves the right to pursue the subject matter of the withdrawn claims in a divisional application. Of the presently pending claims, claims 3, 10, 12, and 16 are amended, dependent claims 35-37 are new, and claims 5-8 and 13 are currently withdrawn from consideration, with withdrawn claims 6-8 and 13 further being amended. Such withdrawn claims depend from claim 1 and would be allowable upon allowance thereof.

Examiner rejected the previously pending claims over one or more of Covelli U.S. Patent Application Publication No. 2003/0092339 (“Covelli”), Barbeau U.S. Patent No. 5,299,602 (“Barbeau”), Collier U.S. Patent No. 5,487,936 (“Collier”), Lovingood U.S. Patent Application Publication No. 2003/0190853 (“Lovingwood”), Standard Textile's Heiman U.S. Patent No. 5,495,874 (“Heiman”), and the 7th edition of Fairchild's Dictionary of Textiles (“the Fairchild dictionary”). While Applicant does not agree with the rejections, in order to streamline prosecution and to move this case to conclusion, Applicant has positioned the claims such that there are only two independent claims, namely claims 1 and 33. As will be seen, independent claim 33 can be viewed for present purposes as a claim depending from claim 1, wherein $x = 2$ and $y = 1$.¹ Accordingly, the remarks herein will focus on independent claim 1 (with specific

¹ Claim 33 is presented in independent form as it represents a particularly advantageous embodiment of the invention as disclosed and so it is believed appropriate to leave it in independent form rather than making it a dependent claim.

mention of claim 33 where thought to be useful), but without waiver or right to present additional arguments, including as directed to one or more of the dependent claims should that become necessary.

Independent claim 1 has been amended in two ways. First, the warp and filling yarns of the woven fabric sheeting have been further defined to call for “at least one of the filling yarns being a synthetic multifilament yarn and at least one of the warp yarns is a spun yarn” [underlining for emphasis]. The foregoing is taken from cancelled claims 4 and 9.² Second, the weave pattern of the woven fabric sheeting has been further defined as “a weave pattern which includes a plurality of warp yarn floats in an x/y float pattern wherein each of x and y are whole numbers greater than zero (0), x is at least two (2), and x ≠ y” [underlining for emphasis].³

Turning to the substantive rejections, Examiner was of the view that claim 1 prior to amendment was anticipated by one or more of Covelli, Barbeau, and Collier (claim 33 was rejected as anticipated by Covelli or Barbeau, but not Collier, which point will be addressed in greater detail below), or that claims 1 and 33 were obvious over either Collier and Lovingood or Heiman and Fairchild dictionary (the latter also being asserted as the basis for an obviousness-type double patenting rejection). All of the rejections are submitted to be in error and, in any event, overcome by the claims as presently amended.

² Claim 33 has been similarly amended.

³ Claim 33 calls for a 2/1 weave pattern which, for present purposes, could be treated as if claim 33 were a dependent claim depending from claim 1 and reciting $x = 2$ and $y = 1$. In that same regard, new dependent claims 35-37 specifically define the x/y float pattern of claim 1 as x is greater than y (claim 35); $x = 3$ and $y = 1$ (claim 36); and $x = 4$ and $y = 1$ (claim 37).

With respect to the anticipation rejections, Examiner certainly appreciates that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). None of Covelli, Barbeau, or Collier disclose all of the features of amended claim 1 (or 33) and thus the anticipation rejections should be withdrawn.

With respect to Covelli, Examiner recognized that it did not disclose a synthetic multifilament yarn in the fill. Similarly, with respect to Barbeau, Examiner recognized that it did not disclose spun yarn for the warp. Those features were in claims 4 and 9, respectively, and they were not rejected as anticipated by Covelli and Barbeau, respectively. As claims 1 and 33 have been amended to recite these features (and claims 4 and 9 cancelled without prejudice), it is respectfully submitted that the anticipation rejections based on Covelli or Barbeau have been overcome and should be withdrawn.

Applicant submits that the same result is obtained with respect to Collier. In that regard, Examiner already acknowledged that Collier did not disclose a 2/1 weave (and hence, claim 33 was not rejected as anticipated by Collier). The 2/1 weave is one species of the $x \neq y$ genus covered by claim 1 and, for the same reason, Collier does not anticipate claim 1 as amended. More particularly, Examiner acknowledged that Collier discloses "a woven fabric comprising warp and weft (or filling) threads" that "can be woven into a 2x2 twill fabric which has warp floats (column 4, lines 10-15)" [underlining for emphasis]. Examiner went on to acknowledge that Collier "fails to teach using 2/1 twill structures." *See* Official Action,

paragraphs 6 and 8. Indeed, upon close review of Collier, the reference is directed to coloring woven fabric to exhibit a shot silk effect that is preferentially achieved by a 1x1 plain square weave in combination with a substantially even density of the warp and weft threads. In the plain square weave construction, each thread of warp and weft alternatively passes over and under the consecutive warp or weft thread. Other typical ground weaves other than the 1x1 plain square weave can be used, for example, a 2x2 twill weave, such that each thread in these constructions shows equally and the cloth would present the same appearance on each side. *See abstract; col. 3, line 63 to col. 4, line 1; col. 4, lines 11-14; col. 5, lines 29-37; and Figs 1 and 2.* Collier thus does not show any $x \neq y$ weave pattern, and so cannot anticipate claim 1 (or claim 33).

With respect to the obviousness rejections based on Collier and Lovingood, in view of Examiner's recognition that Collier did not disclose a 2/1 weave (nor any $x \neq y$ weave), Examiner resorts to Lovingwood for its 2x1 float pattern. Examiner thus asserts that it "would have been obvious to one having ordinary skill in the art to use a 2/1 twill structure as disclosed by Lovingwood, to produce a different visual effect in the fabric of Collier since Collier discloses that different weave patterns can be used to create different designs in the fabric." Examiner further alleges that "it would have been obvious to one having ordinary skill in the art to choose a 2/1 twill weave pattern, since it has been held to be within the general skill of a worker in the art to select a known material (i.e., weave pattern) on the basis of its suitability for the intended use as a matter of obvious design choice." *See Official Action, paragraph 8.* Applicant respectfully disagrees.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). There is clearly no such suggestion of the desirability of the combination for the reasons that follow.

Briefly, by way of background, Applicant's woven fabric sheeting construction, as explained in the specification, includes warp yarn floats in defined float patterns (e.g., 2/1, 3/1, or 4/1 float patterns) and a synthetic multifilament yarn in the filling to provide a woven fabric sheeting with improved levels of comfort and durability. The construction of the woven fabric brings a greater proportion of each of the floated yarns (i.e., the warp yarns) to the surface of the sheeting that tends to increase surface tactile comfort. Thus, the floated yarns may be said to be "comfort yarns". At the same time, the synthetic filament yarn enhances the durability of the sheeting. In addition, the construction provides differentially elevated and/or depressed areas or designs on the surface of the sheeting, which may create pathways or channels for increased airflow through and/or across the sheeting. This feature not only enhances comfort, but also is believed to have a positive impact on skin care. *See* specification, e.g., paragraphs [0007], [0009], [0019], and [0020].

Collier, on the other hand, is directed merely to the coloring of woven fabric, such fabric having specific constructions, e.g., 1x1 plain square weave or 2x2 twill weave, to show equally so that the cloth presents the same appearance, when dyed, on each side. In stark contrast, the weave of Applicant's warp yarn floats expressly avoids even ($x = y$) float patterns that Collier finds necessary to bring out the color evenly. Applicant submits that it would be

inconsistent with, and even contrary to, the teachings of Collier to use an uneven weave as claimed herein. Thus, there is no motivation to replace the fabric constructions of Collier, e.g., 1x1 plain square weave or 2x2 twill weave, with the 2x1 twill structure of Lovingwood, or with any unequal float pattern, as called for by Applicant's present claims. Hence, it is respectfully submitted that the combination of Collier and Lovingwood does not render obvious the invention of Applicant's independent claims 1 and 33, nor any of the dependent claims.⁴

That leaves only the rejections based on Heiman in view of the Fairchild dictionary, either for obviousness or non-statutory obviousness-type double patenting. As with Collier, Examiner recognizes that Heiman does not show a weave where $x \neq y$, and so instead has to turn to the Fairchild dictionary which mentions a 2x1 twill weave pattern. *See Official Action*, paragraph 9. In doing so, Examiner effectively mischaracterizes the scope of the disclosure of Heiman, and at the same time, places undue weight on the Fairchild dictionary.

Heiman is specifically discussed in Applicant's specification, where it is explained that it teaches a woven fabric having a plain weave construction that combines the comfort features of cotton fabrics with the durability advantages of polyester fabrics. This sheeting construction is characterized specifically by the use of cotton warp yarns and continuous filament, texturized, polyester filling yarns. *See, e.g.*, abstract, col. 3, lines 51-65, and col. 4, lines 3-33 of Heiman. Nowhere in Heiman is there any discussion of float patterns, let alone

⁴ In addition, Lovingwood is directed to a chambray, or woven, fabric that uses only cellulosic yarns, i.e., natural yarns, for the filling, e.g., 100% cotton or other cellulosic fiber. *See, e.g.*, paragraphs [0007], [0013], [0016], and [0025], Examples 1-6, and Figs. 1 and 2 thereof. By contrast, Applicant's claims call for at least one of the filling yarns to be a synthetic multifilament yarn. If one were to engraft Lovingwood into Collier, it is submitted that they would also engraft the 100% natural filling yarns, thus moving away from Applicant's invention.

warp float patterns. Thus, there is nothing in Heiman that suggests it should be applicable to weave constructions of the type involved here. Nor does the mere mention in the Fairchild dictionary of a 2/1 twill weave add anything of value, for that has nothing to do with the plain weave construction of Heiman. Indeed, there is not even mention of “twill” in Heiman. Absent hindsight, what possible motivation or reason does the art provide for someone to modify the plain weave of Heiman into a twill or other weave with a 2/1 float construction (or any $x \neq y$ weave, for that matter)? None. By contrast, the $x \neq y$ pattern as claimed results in advantages, as explained in the present application, which are submitted not to be taught or suggested by the art, and certainly not in the context of a plain weave fabric as that shown in Heiman. It is, thus, submitted that the obviousness rejection was in error, has been overcome, and should be withdrawn.

Concerning the double patenting rejection, obviousness-type double patenting is “analogous to [a failure to meet] the nonobviousness requirement of 35 U.S.C. 103”. *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967). The analysis employed for an obviousness-type double patenting rejection parallels that of a section 103 obviousness determination. *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). As can be plainly seen from a reading of the Official Action, Examiner has generally regurgitated the obviousness arguments relabeled as an obviousness-type double patenting rejection. That relabeled rejection is equally as factually flawed as Examiner’s obvious rejection for the reasons stated above. Thus, it is submitted that

Applicant's woven fabric sheeting is not an obvious variation of any of claims 1-21 of the Heiman patent.⁵

As explained above, the disclosure of Heiman involves a 1x1 plain weave, and thus, does not teach the float pattern as presently claimed, nor would it have been obvious to modify Heiman to achieve the claimed invention. For purposes of the double patenting rejection, Examiner must focus on the claims of Heiman, but it is submitted that the result is no different. Assuming for sake of argument that the claims of Heiman are not limited to a 1x1 plain weave, it is submitted that an analogy can be by reference to a genus-species situation. In that context, the claims of Heiman might be viewed as a genus (any float pattern), whereas Applicant's claimed woven fabric sheeting might be viewed as a subgenus or species (specific relation of float pattern with $x \neq y$). Where a later claim is directed to a species, and the Examiner is relying on an earlier disclosure (here, claims) to a genus, Examiner still must show motivation to modify the genus, i.e., Heiman's woven fabric sheeting, to make the subgenus or species, i.e., Applicant's woven fabric sheeting with its specific $x \neq y$ float pattern construction. See, e.g., *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996). The mere fact that a reference is found that

⁵ In any event, Applicant submits that the non-statutory obviousness-type patenting rejection is inappropriate as a matter of law under the circumstances here. In particular, Heiman was published several years ago and so is available as prior art. Obviousness-type double patenting is a judicially created doctrine going beyond the statute in order to prevent a timewise extension of a patent by granting a second patent on an obvious variant of that which is claimed in the first. Of necessity, where the prior patent is available as prior art, if the later claimed invention would have been obvious thereover, no second patent could issue. At the same time, if there is no obviousness, a patent should issue, and there can be no inappropriate extension of the first. Resort to the double patenting doctrine is thus of no moment. The Office has recognized this very situation and instructs that a double patenting rejection "over a patent should only be given if the patent issued less than a year before the filing date of the application. If the patent is more than a year older than the application, the patent is considered to be "prior art" which may be applied in a rejection under 35 U.S.C. 102(b)/103(a)". MPEP § 1504.06. Heiman is available as prior art under 102(b)/103(a), such that there is no legal basis for application of the double patenting rejection.

relates to a float pattern that matches the species but without regard to other aspects of the invention, does not itself provide such motivation. See, e.g., *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). If the mere mention in the art of such elements were sufficient, nothing could be patentable once the genus is known. That is clearly not the law.

Information Disclosure Statement

The Official Action contains a copy of an Information Disclosure Statement (IDS) that was electronically filed and received by the U.S. Patent and Trademark Office on February 2, 2004. It is Applicant's understanding that Examiner considered this form including each of the thirty-three (33) U.S. Patent Documents and the single U.S. Published Application. However, Examiner did not provide a copy of the IDS with the boxes properly initialed. Accordingly, Applicant's representative requests that Examiner confirm of record that she considered that art.

Conclusion

As a result of the remarks given herein, Applicant submits that the rejections of the pending claims have been overcome. Therefore, Applicant respectfully submits that this case is in condition for allowance and requests allowance of the pending claims.

If Examiner believes any detailed language of the claims requires further discussion, Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. Applicants also have submitted all fees believed to be necessary herewith.

Should any additional fees or surcharges be deemed necessary, Examiner has authorization to charge fees or credit any overpayment to Deposit Account No. 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By Randall S. Jackson, Jr.
Randall S. Jackson, Jr.
Reg. 48,248

2700 Carew Tower
Cincinnati, Ohio 45202
(513) 241-2324
FAX (513) 241-6234